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International Specialists in the Environment

MEMORANDUM

DATE: February 14, 1992

TO: Herb Langer, Project Manager, E & E, Detroit, MI

FROM: Emily S. Landis, TAT-Geochemist, E & E, Cleveland, OH

THRU: George M. Albertson, TAT-Chemist, E & E, Cleveland, OH

SUBJ: **Priority Pollutant Metals Quality Assurance Review for Sybill, Inc. Site, Wayne County, MI.**

REF: Analytical TDD: T05-9201-801 Project TDD: T05-9201-016
Analytical PAN: EMI1282AAA Project PAN: EMI1282SAA

The data quality assurance review for 2 oil samples, taken from the Sybill, In.c site, is now complete. Analyses for Priority Pollutant Metals (EPA Methods 6010 and 7470) were performed by Clayton Environmental Consultants, Inc., of Novi, Michigan.

The samples were numbered TS-1 and TS-2, corresponding to the laboratory's numbers of 945534 and 945535, respectively.

Data Qualifications:

I Holding Time: Acceptable.

The samples were collected on January 15, 1992, and received by the laboratory within 24 hours. The samples were analyzed January 21, 1992, well within the 6-month holding time limit for metals, and the 28-day limit for mercury.

II Initial & Continuing Calibrations: Acceptable.

A blank and 3 standards were run for each analyte on the inductively coupled plasma (ICP). All calculated values are within 10% of the true value except for the lowest silver standard (52.85% difference). In this reviewer's opinion, the results should be flagged "UJ" for this element. The blank and a calibration standard were analyzed after each sample.

For the cold vapor method (mercury), a blank plus 4 standards constituted the initial calibration. Check standards were run every 10 samples of the analytical batch.

III ICP/CV Interference Check Standards: Data not available.

IV Method Blanks: Acceptable.

Method blanks were run for both ICP and CV methods. In each, the analytes were all below the instrument detection limit (IDL).

V ICP Serial Dilutions: Not required.

Concentrations of the analytes in the samples do not exceed 50 times the instrument detection limit, therefore serial dilutions are not needed.

Overall Assessment of Data for Use:

The overall usefulness of the data is based on the criteria outlined in "Quality Assurance/Quality Control Guidance for Removal Activities, Data Validation Procedures" (April 1990). With the information provided, the data are acceptable for use with the qualification stated above.

Data Qualification Definitions

UJ - The sample was analyzed for this element, but not detected. Sample and detection limits are estimated because quality control criteria were not met.

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Clayton Project No. 77898-17

Table 2

Lab Number: TS2
Sample Description: 945535

Analyte	Analytical Method (EPA)	Analytical Results (mg/L)	Limit of Detection (mg/L)
Antimony	6010	<1	1
Arsenic	6010	11	1
Beryllium	6010	<0.4	0.4
Cadmium	6010	1.3	0.5
Chromium	6010	7	1
Copper	6010	68	1
Lead	6010	25	1
Mercury	7470	<0.01	0.01
Nickel	6010	20	1
Selenium	6010	<1	1
Silver	6010	<0.2	0.2 UJ ec 3.10.92
Thallium	6010	1	1
Zinc	6010	79	1

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.
22345 Roethel Drive Novi, Michigan 48375

Ms. Emily Landis
TAT Member
ECOLOGY & ENVIRONMENTAL, INC.
6777 North Engle Road
Middleburg Heights, OH 44130

Date Reported: 27-JAN-92
Date Received: 16-JAN-92
Clayton Project No. 77898-17

Dear Ms. Landis:

The following is our report on the samples submitted for analysis.

Table 1

Lab Number: TS1
Sample Description: 945534

Analyte	Analytical Method (EPA)	Analytical Results (mg/L)	Limit of Detection (mg/L)
Antimony	6010	<1	1
Arsenic	6010	11	1
Beryllium	6010	<0.4	0.4
Cadmium	6010	1.2	0.5
Chromium	6010	8	1
Copper	6010	62	1
Lead	6010	8	1
Mercury	7470	<0.01	0.01
Nickel	6010	19	1
Selenium	6010	<1	1
Silver	6010	<0.2	0.2 UJ see 2.10.92
Thallium	6010	1	1
Zinc	6010	42	1